REMARKS

Claims 1-3 have been rejected by the Examiner under 35 USC 102(b) as being anticipated by Tarumi et al., U.S. Patent 5,837,774 or under 35 USC 102(e) as being anticipated by Yamaguchi et al., U.S. Patent 6,673,887B2. Also, claims 4-7 have been rejected by the Examiner under 35 USC 103(a) as being unpatentable over Tarumi et al., Yamaguchi et al. and Chaouk, U.S. Patent 6,160,030 in combination. These rejections are respectfully traversed.

The present invention is directed to a cross-linkable compound comprising a perfluoropolyether (PFPE) containing moiety which is ultimately terminated by an oxygen atom and bonded through a spacer attached to the oxygen atom with an ethylenically unsaturated group. The perfluoropolyether (PFPE) containing moiety that can be used for making perfluoropolyether rubbers are particularly suitable for use in top layers of apparatus for transferring a toner image from an image-forming medium to a receiving medium, while preserving their non-sticky properties for a much longer period of time at elevated temperatures. According to the present invention it has been surprisingly found that such suitable rubbers having good visco-elastic properties, including high elasticity and low compression set, can be obtained with the above cross-linkable compounds when the spacer extends over at least three atoms between the oxygen atom and the ethylenically unsaturated group. Thus, the distance between the oxygen atom which terminates the compound comprising the PFPE-containing moiety and the ethylenically unsaturated group involves at least three atoms in a row. As a result, good monomers for providing suitable rubbers can be obtained.

From the context of the Examiner's Office Action letter, it is understood that the main issue which stands in the way of allowance of the present application over the prior art is the definition of the PFPE-containing moiety within the present application. From claim 4 of the present application, it is clear that indeed $(C_nF_{2n}O)_m$ represents the (also commonly understood) PFPE moiety. The same claim, however clearly and unambiguously states that B is considered to be the spacer as defined in the present application. The general formula given in claim 4, however also shows a bivalent group Q, selected from - CF_2-CH_2-O- and -CH_2-CH_2-O-. By

definition (present application) bivalent group Q is not part of the spacer B. The oxygen atom in t he group Q is intended to be the ultimately terminating oxygen group as claimed in claim 1. However, in current claim 1 the spacer is defined as extending between the ultimately terminating oxygen atom of the PFPE moiety. The description as originally filed, however, clearly states: "Thus the distance between the oxygen atom which terminates the compound comprising the PFPE-moiety and the ethylenically unsaturated group involves at least three atoms in a row." (See page 2, lines 29-31). The compound COMPRISING the PFPE-moiety is, thus not limited to the PFPE-moiety itself. The compound comprising the PFPE-moiety is therefore represented by D-$(C_nF_{2n}O)_m$-Q- or in the case D is A-B-Q-O- by –Q-O-($C_nF_{2n}O)_m$-Q-. Accordingly, claim 1 has been amended such that it is now clear that the ultimately terminating oxygen atom does not originate from the PFPE-moiety, but from the compound comprising the PFPE-moiety. Thus, claim 1 has been amended to recite a cross-linkable compound comprising a perfluoropolyether (PFPE)-containing moiety.

It is the Applicants' position that concerning the Examiner's novelty rejection, none of the cross-linkable compounds disclosed in the cited prior art documents fall within the scope of amended claim 1 for all of the reasons previously presented to the Examiner particularly the copies of the relevant pages of both the Tarumi and Yamaguchi patents. Since none of the disclosed compounds in the prior art references comprise a non-oxygen containing spacer that extends over at least three atoms, it is believed that neither of said prior art references can possibly anticipate the present invention.

Concerning the Examiner's obvious rejection under 35 USC 103(a), it is the Applicants' position that none of these prior art documents hints at non-oxygen containing spacers extending over at least three atoms. This characteristic is an essential and distinguishing feature of the present invention as pointed out at page 2, lines 25-32 of the present application wherein it is stated that "it has now been surprisingly found that this object, and other objects for obtaining suitable rubbers, such as good visco-elastic properties including high elasticity and low compression set, is met with the above cross-linkable compounds when the spacer extends over at least three atoms between the oxygen atom and the ethylenically unsaturated group. Thus, the

"distance" between the oxygen atom which terminates the compound comprising the PFPE-moiety and the ethylenically unsaturated group involves at least three atoms in a row." This concept is not recognized by the prior art and furthermore, this concept cannot be considered an obvious extension of the prior art. The common difference of the perfluropolyethers found in the prior art is that the spacer B according to the present invention has three carbon atoms, whereas the groups B found in the prior art forming the spacer B according to the definition of claim 1 only span one carbon atom. Therefore, compounds satisfying the requirements of the present invention are not known in the prior art. The compounds of the present invention yield, after polymerization, PFPE rubbers with very good properties for use as a top layer in a device for transferring a toner image from an image-forming medium. In fact, one skilled in the art could not modify the compounds according to the prior art in order to arrive at the compounds defined by claim 1 of the present application since the suitable methods of synthesis for such modified compounds are not derivable directly from the prior art documents and accordingly it would take a considerable, non-obvious effort and combination of knowledge which would extend far beyond the obvious extensions of the prior art as argued by the Examiner. Furthermore, even if, for sake of argument, one skilled in the art could modify the known methods to obtain the compounds according to claim 1, there certainly is no suggestion in the prior art documents of providing an incentive to go in this direction. This is particularly true when it is recognized that none of the prior art references are even remotely concerned with perfluoropolyether rubbers which are particularly suitable for use in top layers of apparatus for transferring a toner image from an image-forming medium to a receiving medium, while preserving the non-sticky properties of the rubbers for a much longer period of time at elevated temperatures. Thus, according to the present invention, it has been surprisingly found that such suitable rubbers possess good visco-elastic properties including high elasticity and low compression set. The Tarumi patent is directed to a curable product which exhibits water repellency, oil repellency, solvent resistance, chemical resistance, weatherability, releasability, lubricating qualities and the like. The Yamaguchi patent relates to cured fluorine-containing materials which are best suited as optical materials, tent film materials, sealants, coating materials, parting agents, and the like. The Chaouk patent is directed to porous polymers which are utilized in the preparation of

ophthalmic devices, such as membranes or ophthalmic devices, such as for example, contact lenses. Thus, none of the prior art references relied upon by the Examiner provides the necessary teaching, suggestion or motivation necessary to render obvious the Applicants' inventive contribution.

As the Examiner will note, in addition to amending claim 1 in an effort to clarity the definition of the PFPE moiety as defined by the present application, the Applicants have also added claim 12 to the present application which represents a combination of original claims 1 and 4 together with the clarifying amended feature added to claim 1 of the present application.

Accordingly, in view of the above amendments and remarks reconsideration of the rejections and allowance of all of the claims of the present application are respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Joseph A. Kolasch Reg. No. 22,463 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.147; particularly, extension of time fees.

Dated: August 11, 2008

Respectfully submitted,

By _____
Paul C. Lewis
Registration No.: 43,368

BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant